

CLAIMS

1. A latex of nitrile group-containing copolymer rubber containing 10 to 30 mass% α,β -ethylenically unsaturated nitrile monomer unit, having an iodine value of 250 or less and a Mooney viscosity (ML₁₊₄, 100°C) of 10 to 120, and showing a temperature difference (ΔT_g) of 15°C or less between extrapolated glass transition initiation temperature (T_{ig}) and extrapolated glass transition end temperature (T_{eg}) measured by differential scanning calorimetry.
2. The latex according to claim 1, wherein the temperature difference (ΔT_g) is 14°C or less.
3. The latex according to claim 1 or 2, wherein the compositional distribution breadth of each monomer unit in the nitrile group-containing copolymer rubber is 80 mass% or less wherein the compositional distribution breadth of each monomer is the ratio of a difference between the maximum and minimum contents of each monomer in a minute part of the polymer to the content of each monomer in the whole polymer.
4. The latex according to any one of claims 1 to 3, wherein the compositional distribution breadth of a monomer unit copolymerizable with the α,β -ethylenically unsaturated nitrile monomer is 80 mass% or less wherein

the compositional distribution breadth of each monomer is the ratio of a difference between the maximum and minimum contents of each monomer in a minute part of the polymer to the content of each monomer in the whole polymer.

5. The latex according to any one of claims 1 to 4, wherein the content of the α, β -ethylenically unsaturated nitrile monomer unit in the nitrile group-containing copolymer rubber is 12 to 25 mass%.

6. The latex according to any one of claims 1 to 5, wherein the iodine value of the nitrile group-containing copolymer rubber is 200 or less.

7. The latex according to any one of claims 1 to 6, wherein the average particle diameter of the nitrile group-containing copolymer rubber is 50 to 150 μm .

8. An adhesive treatment solution comprising the latex according to any one of claims 1 to 7 and a resorcinol/formaldehyde resin.

9. The treatment solution according to claim 8, wherein the amount of the resorcinol/formaldehyde resin incorporated into 100 parts by weight of the nitrile group-containing copolymer rubber dispersed in the latex is 3 to 60 parts by weight.

10. An adhesive composition comprising a resorcinol/formaldehyde resin and nitrile group-containing copolymer rubber particles containing 10 to 30 mass% α, β -ethylenically unsaturated nitrile monomer unit, having an iodine value of 250 or less and a Mooney viscosity (ML₁₊₄, 100°C) of 10 to 120, and showing a temperature difference (ΔT_g) of 15°C or less between extrapolated glass transition initiation temperature (T_{ig}) and extrapolated glass transition end temperature (T_{eg}) measured by differential scanning calorimetry.

11. The adhesive composition according to claim 10, wherein the amount of the resorcinol/formaldehyde resin incorporated into 100 parts by weight of the nitrile group-containing copolymer rubber particles is 3 to 60 parts by weight.

12. The adhesive composition according to claim 10 or 11, wherein the water content in the composition is 1 mass% or less.

13. A fiber member comprising a layer of the adhesive composition according to any one of claims 10 to 12 formed on at least a part of the surface of a fiber member.

14. The fiber member according to claim 13, wherein the thickness of the adhesive composition layer after

drying is 0.1 to 10 μm .

15. The fiber member according to claim 13 or 14, wherein the fiber constituting the fiber substrate is selected from the group consisting of glass fiber, polyester fiber, polyamide fiber and polybenzobisoxazole.

16. A method of producing a fiber member, which comprises applying and drying the adhesive treatment solution according to claim 8 or 9 on at least a part of the surface of a fiber substrate.

17. A composite member comprising the fiber member according to any one of claims 13 to 15 adhesive-bonded to a vulcanized rubber member.

18. A method of producing a fiber member/vulcanized rubber composite member, which comprises bringing a vulcanizable rubber composition into contact with an adhesive composition layer formed on the surface of the fiber member according to any one of claims 13 to 15 and then vulcanizing it.